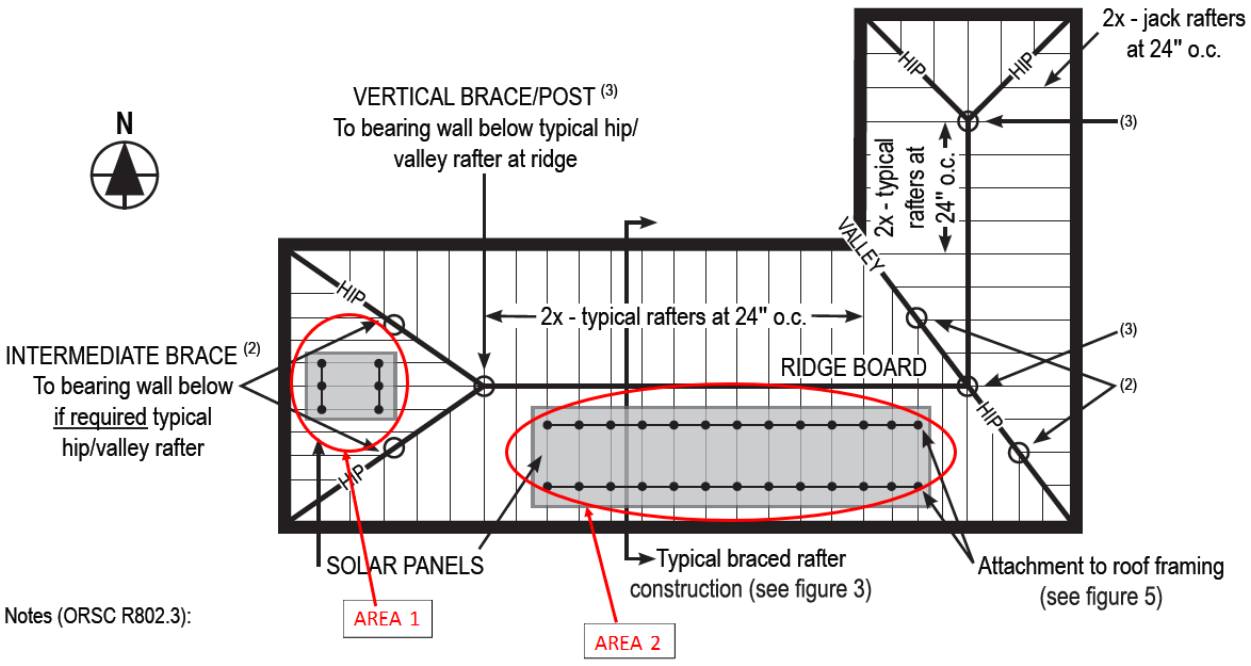
Answers to questions raised at demonstration of solar permit application improvements in Development Hub PDX
October 5, 2022

Question 1: If modules are over a trapezoid shaped roof, with hip/valley rafters are on the ends, however the modules are only covering full-length rafters, does it follow standard procedure as far as rafter spans and such and ignores the whole intermediary braces/posts at hip/valley points?

We recommend a free 15-Minute Question Appointment with a Building Code and Engineering Reviewer about specific job sites that may be related to this question.

In general,

We are interpreting that the person is asking: If a roof has hips and valleys but solar panels are placed so that they do not impact the hips and valley framing, do they still need to check hips and valley framing? In general, one does not need to check the hips and valley framing if the hips and valley framing members are not impacted by the placement of the solar panels. The key word is "impacted." Solar panels do not have to be directly over a valley or hip framing to be impacted. For example, the solar panels may be placed on the gable end that impacts the loads to the hip and valley framing even though the solar panels are not directly on a hip or valley member. In such a case hips and valleys need to be checked. As an example, see the figure below. If solar panels are placed in area 1 then hips and valley framing members need to be checked. If there are no panels in area 1 and solar panels are only in area 2, for example, then hips and valleys do not need to be checked.



Question 2: It would be good to clarify if the single 36" pathway required can straddle a hip (18" each side). The original prescriptive path app just shows 36" on the side where the solar is, however, I am unsure if that's actually the only way acceptable for that pathway.

We recommend a free 15-Minute Question Appointment with a Fire Safety expert about specific job sites that may be related to this question.

In general,

A Fire Safety expert will review the rare instances when the use of a hip or valley to meet the 36-inch pathway requirement is requested by the applicant and the scenario is reasonable and manageable for emergency operations. There are certain times when it is reasonable and safe and times when it would not be considered so. The use of a ridge or hips is not standard procedure.

In some instances we will allow the use of both hips and valleys for the pathways, splitting the hip or the valley 18 inches on each side.

Where we will not allow it is when the roof is steeper than a 4:12 pitch, since a roof ladder will definitely be needed to use the pathways and a roof ladder is not designed for use in valleys or on hips.

Question 3: No data sheets (specifications) with plan set?

We welcome a manufacturer data sheet / spec sheet / cut sheet to be included with the plan set, but it is not required.

Question 4: What if there are multiple rafter spans for the project. Was there an additional rafters option? Or if one roof has pre-engineered trusses and rafters?

We recommend a free 15-Minute Question Appointment with a Building Code and Engineering Reviewer about specific job sites that may be related to this question.

In general,

To the first part of the question: If there are multiple spans of a rafter, verify if the longest span works. If it does the shorter span will work and does not need to be checked. If it does not, then an engineered solution is required.

The second part of the question appears to be asking for a situation where the roof framing may be a mix of pre-engineered trusses and rafters. If that is the case a plan should be submitted showing a roof framing plan where pre-engineered trusses are and where there are rafters. If solar panels are being installed on rafters, then the rafters need to be checked per the prescriptive requirements. If solar panels are not being installed in areas where there are rafters, then no check of the rafters is required.

Question 5: How long does it take for a permit application to be applied and issued?

This depends on the quantity of permit requests, and the quality of the specific submittal and its number of checksheet cycles. When there are no submittal issues, it is typically 5 business days or less.

Question 6: How long does a permit usually stay on the pre-issuance list?

Typically, 0-2 business days.